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ENHANCING THE QUALITY OF EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY

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Abstract

A well educated population, equipped with the relevant knowledge, attitudes and skills is essential for economic and social development in the 21st century. Education is the most potent tool for socio-economic mobility and a key instrument for building an equitable society. Information and communication technologies (ICTs) are a major factor in shaping the new global economy and producing rapid changes in society. Improvement of the quality of education is strongly linked to the quality of physical space, textual materials, classroom processes, academic support to the teachers, assessment procedures and community involvement. In many countries, ICT has helped in improving the quality of education. It has the ability to address illiteracy and improve the quality of education in all sectors through multimedia capabilities such as simulations and models. The acquisition of ICT skills in educational institutions helps knowledge sharing, thereby multiplying educational opportunities. ICT should also be used to network teachers and schools in a specific geography this would enhance collaborative teaching and learning. Against this background the current study tries to examine the quality of education through information and communication technology in India. The study concluded that ICT can improve the quality of learning and thus contribute to the economy. The adoption and use of ICTs in education have a positive impact on teaching, learning and research.

Introduction

Education is the driving force of economic and social development in any country (Cholin, 2005). It is necessary to find ways to make education of good quality, accessible and affordable to all, using the latest technology available. The Information and Communication Technology (ICTs) act as a effective tool for enhancement of learning, teaching and education management covers the entire spectrum of education from early childhood development, primary, secondary, tertiary, basic education and further education and training. Integrating ICT in teaching and learning is high on the educational reform agenda and it is seen as indispensable tool to fully participate in the knowledge society. In India, education was never considered as a trade but it was conceptualized as a liberating force as well as an evolutionary force which enabled the individual to rise from mere materiality to superior planes of intellectual and spiritual consciousness (Joshi, 1998).

Enhancing and upgrading the quality of education and instruction is a vital concern, predominantly at the time of the spreading out and development of education. According to UNESCO (2002) information and communication technology (ICT) may be regarded as the combination of 'Informatics technology' with other related technology, specifically communication technology. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counselling, interactive voice response system,

audiocassettes and CD ROMs etc have been used in education for different purposes (Sharma, 2003).

The demand for education in developing countries like India has skyrocketed as education is still regarded as an important bridge of social, economic and political mobility (Amutabi et.al 2003). ICTs are also tools which enable and bring about transformation which, when used properly, can encourage the shift an environment which is learner-centered. The use of information and communication technologies in the educative process has been divided into two broad categories: ICTs for Education and ICTs in Education. ICTs for education refers to the development of information and communications technology specifically for teaching/learning purposes, while the ICTs in education involves the adoption of general components of information and communication technologies in the teaching learning process.

ICT Enhancing the Quality of Education

Quality in education is rapidly evolving over time ICTs have an important role to play in changing and modernizing educational systems and ways of learning. It increases the flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. Meanwhile it have the potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change. In a rapidly changing world, basic education is essential for an individual be able to access and apply information. The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research (Yusuf, 2005). It can influence the way students are taught and how they learn as now the processes are learner driven and not by teachers. This in turn would better prepare the learners for lifelong learning as well as to improve the quality of learning.

ICT provides opportunities to access an abundance of information using multiple information resources and viewing information from multiple perspectives, thus fostering the authenticity of learning environments. ICTs in higher education are being used for developing course material; delivering content and sharing content; communication between learners, teachers and the outside world; creation and delivery of presentation and lectures; academic research; administrative support, student enrolment etc (Haddan,2014). ICT can be used as a tool in the process of education in the following ways:

1. Informative tool: It provides vast amount of data in various formats such as audio, video, documents.
2. Situating tool: It creates situations, which the student experiences in real life. Thus, simulation and virtual reality is possible.
3. Constructive tool: To manipulate the data and generate analysis.
4. Communicative tool: It can be used to remove communication barriers such as that of space and time

Overview of ICT in Higher Education

Higher education in the country is experiencing a major transformation in terms of access, equity and quality. Higher education systems have grown exponentially in the last five decades to meet the demands of quality education for all. Even then the challenge to develop a higher education system that is flexible and dynamic so as to holistically integrate the technology in the management and delivery of learning programmes is daunting The increasing use of information and communication technologies (ICTs) has brought changes to teaching and learning at all levels of higher education systems leading to quality enhancements. Application of ICTs in managing higher education institutions and use of the technology to homogenize quality of education in the highly diverse scenario across the colleges and universities

established in the country would benefit many students. (Neeru Snehi 2009). ICT increases the flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. ICTs in higher education are being used for developing course material; delivering content and sharing content; communication between learners, teachers and the outside world; creation and delivery of presentations and lectures; academic research; administrative support, student enrolment etc

National Mission on Education through ICT

The National Mission on Education through Information and Communication Technology (NMEICT) has been envisaged as a Centrally Sponsored Scheme(CSS) to leverage the potential of ICT, in teaching and learning process for the benefit of all the learners in Higher Education Institutions in any time any where mode. This was expected to be a major intervention in enhancing the Gross Enrolment Ratio (GER) in Higher Education by 5 percentage points during the 11th Five Year Plan period. The three cardinal principles of Education Policy viz., access, equity and quality could be served well by providing connectivity to all colleges and universities, providing low cost and affordable access cum-computing devices to students and teachers and providing high quality e-content free of cost to all learners in the country.

The three cardinal principles of Education Policy viz.,access, equity and quality could be served well by providing connectivity to all colleges and universities, providing low cost and affordable access-cum computing devices to students and teachers and providing high quality e-content free of cost to all learners in the country. It seeks to bridge the digital divide, i.e. the gap in the skills to use computing devices for the purpose of teaching and learning among urban and rural teachers/learners in Higher Education domain and empower those, who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy. It plans to focus on appropriate pedagogy for e-learning, providing facility of performing experiments through virtual laboratories, on-line testing and certification, on-line availability of teachers to guide and mentor learners, utilization of available Education Satellite (EduSAT) and Direct to Home (DTH) platforms, training and empowerment of teachers to effectively use the new method of teaching learning etc.

The Mission aims to extend computer infrastructure and connectivity to over 25000+colleges and 2000 polytechnics in the country including each of the department of 419universities/deemed universities and institutions of national importance as a part of its motto to provide connectivity up to last mile. Up to 400 nodes LAN on average is also being provided under the Mission. Connectivity to universities and colleges is in progress and as on date, 400 universities and nearly 26000 colleges in the country have been connected (Annual Report 2013-2014). The rapid increase in mobile penetration and evolution of4G wireless technologies such as WiMax/LTE it is expected that broadband connectivity issues can be resolved by the end of the 12th five-year-plan (2012-2017) in semi-urban/rural parts of the country. The quality of ICT infrastructure and its use is limited in a large percentage of Autonomous/Affiliated Colleges especially due to lack of trained IT staff, connectivity issues and shortage of funds.

Conclusion

The study concluded that ICT can improve the quality of learning and thus contribute to the economy. The adoption and use of ICTs in education have a positive impact on teaching, learning and research. It is also necessary to extend a stronger understanding of future learning needs and future environments for ICT skills. It will changes the characteristics of problems and learning tasks, and hence play an important task as mediator of cognitive development, enhancing the acquisition of generic cognitive competencies as essential for life in our knowledge society. The

increasing use of information and communication technologies (ICTs) has also brought changes to teaching and learning at all levels of higher education systems leading to quality enhancements

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